Funding cycle: February 1, 2016–January 31, 2018

Preliminary proposals must be received by 5:00 p.m. Pacific Standard Time, February 26, 2015

Full proposals must be received by 5:00 p.m. Pacific Daylight Time, May 21, 2015

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Washington Sea Grant (WSG) requests proposals for its next two-year funding cycle, which begins February 2016. Investigators at academic, research and education institutions throughout the state of Washington are invited to apply for one- to two-year projects in two categories:

- Research projects contributing to WSG and state priority information needs and advancing knowledge in one of four WSG focus areas: healthy coastal ecosystems; sustainable fisheries and aquaculture; resilient communities and economies; and ocean literacy and workforce development.
- Maritime workforce projects addressing identified maritime workforce capacity needs such as career pathway definition, curriculum and program development and innovative approaches for recruitment and training.

Applicants are required to submit both a preliminary proposal and a full proposal through eSeaGrant, the WSG online proposal submission system (https://eseagrant.wsg.washington.edu).

About $2 million will be available over the funding cycle to support an estimated 8 –11 research projects and at least one maritime workforce project. Project budgets may range in size from $40,000 to $110,000 annually, plus a required 50% non-federal cost share.

This document provides information and guidance for project development and submission.

### Schedule for Proposal Submission and Review

#### 2015
- Investigator briefing on outreach ......................February 11
- Preliminary proposals due by 5:00 p.m. ...........February 26
- Notification of preliminary proposal review outcome .................................................April 1
- Full proposals due by 5:00 p.m. ..............................May 21
- Peer review and project selection .....................June through September
- Notification of funding decisions ................Late September

#### 2016
- Projects scheduled to begin ...............................February 1

### Program Summary and Priorities

WSG supports marine research and education and works with communities, managers, businesses, academic institutions and the public to strengthen understanding and sustainable use of ocean and coastal resources. Based at the University of Washington (UW) College of the Environment, WSG is part of a national network of 33 Sea Grant programs administered by the National Oceanic and Atmospheric Administration (NOAA) and funded through federal–university partnerships.

National and state strategic planning efforts are reflected in the WSG 2014–2018 Strategic Plan (wsg.washington.edu/admin/pdfs/2014-18StrategicPlan.pdf) with four interrelated themes emerging as WSG critical program areas:

1. **Healthy Coastal Ecosystems**
   - The state of Washington is located within one of the world’s most productive ocean and coastal regions, providing resources that support diverse cultural, economic and ecological services. However, limited knowledge of ecosystem structure and function, together with constraints on our capacity to understand and prioritize threats, hampers effective management to rebuild depleted marine populations, restore coastal habitats, and address concerns like ocean acidification, harmful algal blooms, hypoxia and aquatic invasive species. WSG focuses on understanding ocean and coastal environments and advancing ecosystem-based approaches to manage, protect and restore natural resources.

2. **Sustainable Fisheries and Aquaculture**
   - The fishing and seafood processing sector is among Washington’s largest employers, providing jobs for 15,400 individuals and generating more than $1.1 billion in personal income. It also produces more than $8 billion in gross business income, nearly 60% of state direct maritime revenues in 2012. In addition, Washington leads the nation in production of farmed clams, oysters and mussels with an annual value of over $107 million. Despite their value, the fishing and aquaculture industries face multiple challenges, including new conservation restrictions and rebuilding plans, environmental stressors such as ocean acidification and harmful algal blooms, shoreline development and habitat loss, market competition, safety concerns for seafood products and operations, and limited scientific information. WSG focuses on facilitating sustainable use of living marine resources through science-based management and environmentally and economically responsible approaches.

3. **Resilient Communities and Economies**
   - Since 1980, Washington’s population has grown by 2.6 million and is expected to reach 8.8 million by 2040. Nearly seven out of 10 residents live in the state’s 15 coastal counties, with the vast majority living in large Puget Sound urban centers. Increasing population and regional economic trends have put pressure on some traditional maritime sectors, creating conflict with waterfront development. In addition, rapid growth has added stress to local coastal ecosystems through wetlands loss, increases in impervious surfaces, water pollution and
increased susceptibility to coastal hazards. WSG focuses on building capacity for coastal communities that are economically vibrant, environmentally healthy and resilient to hazards and climate change.

4. Ocean Literacy and Workforce Development

Despite the geographic proximity of Puget Sound residents to the coast, a 2006 public opinion poll revealed that most people in the region know very little about this central environmental feature in their lives — its resources, industries or declining health. Washington is not unique in this regard. An American Academy of Arts and Sciences survey found widespread public concern for the health of the ocean and coasts, but only 31% of respondents recognized that their personal behaviors had an impact. At the same time, the state maritime sector continues to grow an average of 6.4% a year, and today provides jobs with substantially better pay than the average for all industries. Many industries are facing shortages in well-trained workers, due to both industry growth and the loss of experienced workers to retirements. WSG focuses on educating learners of all ages and strengthening workforce capacity.

III Project Categories

Responding to the priorities outlined above, WSG is seeking proposals for projects in two categories:

• Research projects contributing to WSG and state priority information needs and advancing knowledge in one of the four priority program areas discussed above.

• Maritime workforce projects addressing identified maritime workforce capacity needs such as career pathway definition, curriculum and program development and innovative approaches for recruitment and training.

Research Projects

WSG anticipates that 8–11 research projects will be selected for the 2016–2018 funding cycle. Successful proposals combine scientific excellence and a focus on problems and opportunities facing ocean and coastal users, managers and educators. Current research projects are described on the WSG website at wsg.washington.edu/research/index.html. Research projects may range from basic to applied research or include a combination of both.

Proposed research projects must identify priorities to be addressed and align with the critical program areas and goals identified in the WSG 2014–2018 Strategic Plan. In addition, investigators are encouraged to align with research priorities identified by state, regional, tribal and national research organizations. Examples of documents detailing such priorities include:


WSG encourages applications from researchers in the natural, social and education sciences. WSG is especially interested in supporting collaborative projects, interdisciplinary partnerships and early career researchers. Partnerships among academic and research institutions, agencies, industry and user-groups are encouraged. For research projects that address regional issues, engage investigators outside of Washington and involve other Sea Grant programs, please consult the WSG Director to explore joint submittal and funding procedures.

Maritime Workforce Projects

This is the first time WSG has offered funding for proposals in this category. We anticipate that at least one project will be funded as a pilot. However, additional proposals may be selected through the competitive review process. The category aligns with WSG’s Ocean Literacy and Workforce Development program area.

In 2012, Washington’s maritime sector contributed $15.2 billion in gross business income and employed more than 57,700 people with a total of more than $4 billion in wages. Maritime industries offer job opportunities in a range of occupations to support: marine logistics and shipping; boat and ship building, repair and maintenance; fishing, aquaculture and seafood processing; maritime support services including boat dealers and marinas; passenger water transportation; and federal and military operations like the U.S. Coast Guard and NOAA. In addition to supporting a diverse workforce, the maritime sector provides better paying jobs that average $70,800 a year in contrast to the $52,000 average for wages in other sectors of the economy.

Because a well-trained workforce is critical to Washington’s competitiveness in the global maritime economy, educators and industry leaders have established an initiative to collaboratively explore innovative, relevant training programs for meeting future employment needs. Among the identified challenges are: lack of identified career pathways; limited job information availability for students, parents, teachers and guidance counselors; overlapping programs that compete for funding; and poor communications and connections between educators and industry, particularly small businesses.

WSG invites proposals for pilot projects to support Washington’s maritime workforce initiative that meet one or more of the following objectives:

• Increase awareness of maritime occupations and job opportunities;

• Identify and communicate clear career pathways to maritime occupations;

• Develop maritime curricula and programs including teacher training; and

• Assist the maritime industry recruit and retain workers.

Educators from public education institutions, community colleges, universities and informal education organizations are encouraged to apply. WSG is particularly interested in supporting collaborative projects that respond to a clear workforce need, demonstrate direct involvement and investment by marine businesses, and focus on outcomes that can be achieved by the project end date.
IV PROPOSAL AWARD, INVESTIGATOR ELIGIBILITY, OTHER PROJECT INFORMATION

Award Information

WSG is funded primarily through four-year federal omnibus grants that integrate research, education, public engagement and administrative activities. The current omnibus period runs from February 1, 2014, through January 31, 2018. This request for proposals covers the second half of the period and projects will be conducted primarily in calendar years 2016 and 2017. Projects may be scheduled to begin in 2016 or 2017 and may be of one or two years in duration.

Project awards are contingent on the availability of funds to WSG through NOAA’s National Sea Grant Office. Proposals may request annual budgets of up to $110,000 for a total project cap of $220,000. While no minimum budget has been established, the smallest annual budget awarded is usually about $40,000.

Federal law requires that WSG provide a non-federal cost share of 50% or one dollar for every two dollars of federal funds received. For WSG competitive projects, the cost share is the applicant’s responsibility in all but a few exceptional cases. Cost share sources must be clearly identified, because projects selected for funding support will be required to provide documentation of the funds claimed. Cost share funds must be expended during the same time period as the project and may be provided in kind as well as in cash. Examples of in-kind matching include: non-federal salaries, wages and benefits of those working on the project; expendable supplies and equipment; shipping time; and donated volunteer time, supplies, space or equipment. Indirect costs associated with non-federal contributions also may be used for matching. Foundation grants, state and local grants and other state funds are eligible sources of matching funds with documented approval from those sources.

Investigator Eligibility

Project Principal Investigators (PIs) must be affiliated with a university, two- or four-year college, museum, research laboratory or other nonprofit or tribal research or education institution in Washington state. Project Co-Principal Investigators (Co-PIs) may be affiliated with the above-listed Washington institutions, research or education institutions outside of Washington, state and federal agencies and for-profit and foreign organizations. With few exceptions, individuals from state and federal agencies and for-profit and foreign organizations are discouraged or prohibited from requesting direct support. However, their contributions may be eligible as matching or in-kind support for the project. WSG welcomes proposals for cooperative projects involving research institutions and the private sector.

WSG discourages PIs from submitting more than two preliminary proposals. Even if a PI submits multiple preliminary proposals that are encouraged for development as a full proposal, he or she will be limited to submittal of a single project to the full proposal stage.

PIs who have received WSG funds previously and have not completed all reporting requirements are ineligible for future funding until reports have been submitted and approved.

Student Support

Student involvement is an important project component. WSG encourages projects to support the exploration by students from diverse backgrounds of employment opportunities in marine businesses and professions. A central focus of the maritime workforce projects is to build pathways and programs for students to pursue maritime careers. In addition, the inclusion of direct student support in the budget is strongly encouraged for all research projects. This may include support for undergraduate and graduate students and post-doctoral researchers. Only in exceptional cases will research projects be funded that lack significant involvement of students or post-doctorates.

Engagement Plan

Each proposal must provide an engagement plan that describes how broader audiences can use the project results. For research projects, the broader impacts are important considerations in advancing the WSG mission — to improve the translation of research and scientific information into knowledge for use in the marine environment. For workforce projects, the primary focus should be on how the pilot will be applied in building workforce capacity.

PIs are strongly encouraged to work with WSG outreach, communications and education staff and to identify and contact user groups, industry and government agencies that will benefit from project results. While Sea Grant staff may participate as part of a project team, their participation will be covered by the WSG outreach budget and they do not receive funds from project budgets. Staff also can help facilitate interaction with appropriate organizations and are available to discuss specific outreach, communications and education ideas, as well as potential beneficiaries (users) and outcomes.

On February 11, 2015, from 1:00–4:00 p.m., WSG will host an Outreach Workshop to brief potential PIs on the Sea Grant program, introduce WSG staff, and facilitate collaborative and innovative plans for outreach and engagement. Investigators are strongly encouraged to attend. Please RSVP at https://catalyst.uw.edu/webq/survey/chelkahn/257225.

Conflicts of Interest, Human Subjects and Animal Care

All projects undertaken through WSG must be conducted in full compliance with applicable federal and state laws pertaining to conflicts of interest. The UW’s Significant Financial Interest (SFI) disclosure policy applies to all UW participants in grants and contracts and is available at www.washington.edu/research/osp/gim/gim10.html. Please note: this policy requires that any UW personnel who are responsible for the design, conduct or reporting of university research on any project selected for funding are required to electronically complete a disclosure before the WSG omnibus grant can be submitted to NOAA. Other participating institutions have adopted their own policies consistent with state codes and federal policies and, where this is the case, project members will be expected to follow the policies of their home institution. For situations in which institutions do not have formal policies, the UW policy will apply.

For projects that involve research on vertebrate animals or human subjects, it is the PI’s responsibility to identify and ensure compliance with all applicable federal, state and institutional require-
Preliminary Proposal Guidance

Preliminary proposals must be submitted electronically though the WSG eSeaGrant system by **5:00 p.m. on February 26, 2015**. At that time the system will shut down automatically and lock out late submissions. Preliminary proposals received after the deadline will not be considered.

Each preliminary proposal must contain the following components:

1. **Investigator Records and Resumes**
   Online record and resume of no more than two-pages for each of the senior personnel on the project. A WSG resume template is available in eSeaGrant.

2. **Project Summary**
   Project title, project start and completion dates, project category and list of all team members in addition to investigators. The proposed project end date may not extend past January 31, 2018.

3. **Project Narrative**
   *(Four page maximum; Times New Roman 11-point or greater, one inch margins)* The following elements should be covered:
   - Alignment of the research priority or priorities addressed with the strategic program areas listed above;
   - Summary of the project and methods
   - Expected outcomes and potential benefits and
   - Engagement plan (see above for details)
   The project narrative may include references, which do not count in the four-page limit.

4. **Budget**
   A completed budget worksheet for each year of the project. Detailed budget instructions are provided in eSeaGrant. Although numbers are preliminary estimates, the budget should reasonably approximate final project costs. Budget justifications are not required for preliminary proposals.

5. **Suggested Reviewers**
   Contact details for at least three scientific peers from outside of Washington state who are qualified to provide independent and knowledgeable review of your project. Suggested reviewers cannot be beneficiaries of the proposal research project; colleagues that the investigators have worked with in the last three years as project co-investigators; or former mentors, advisors or students of investigators.

Full Proposal Guidance

Only investigators who submit preliminary proposals are eligible to submit full proposals. Full proposals must be submitted electronically through the WSG eSeaGrant system by **5:00 p.m. on May 21, 2015**. At that time the system will shut down automatically and lock out late submission. Full proposals received after the deadline will not be considered.

Each full proposal must contain the following components:

1. **Investigator Records and Resumes**
   Completed online record and resume of no more than two-pages for each of the senior personnel on the project. Investigator records and resumes submitted in the preliminary proposal stage will be carried over in eSeaGrant and should be updated to reflect personnel changes. A WSG resume template is available in eSeaGrant.

2. **Project Summary**
   Complete the following:
   - Project start and completion dates
   - Project title
   - Project use of vertebrate animals or human subjects
   - List of related projects
   - Keywords
   - Sea Grant classification
   - Objectives (2000 character limit with spaces) – Clearly state the short-term and long-term objectives of the proposed work related to WSG goals and strategies. Incorporate both the scientific and societal purposes of the project in these objectives.
   - Methodology (2000 character limit with spaces) – Succinctly describe the methods and approach to be used in accomplishing the objectives.
   - Rationale (2000 character limit with spaces) – Concisely state the problem or opportunity addressed. Indicate why the project is important, appropriate for WSG support and why the proposed approach is necessary. Identify the expected outcomes of the project and potential project users.

3. **Project Narrative**
   *(20 page maximum; Times New Roman 11-point or greater; one inch margins)* The project narrative is the primary basis for funding decisions. Documentation must be complete and provide adequate information for evaluation of project technical merits and its contribution to WSG's mission and strategic priorities. The following elements should be covered:
   - Problem or opportunity addressed
   - Rationale and present status – Provide a brief statement of expected outcomes or products and potential benefits. Critically evaluate existing knowledge, programs or services, and previous work pertaining to the problem or opportunity.
• **Approach** – Provide a work plan that fully describes the project structure and design; identifies specific tasks to be accomplished; explains the scientific or educational methods that will be used to accomplish the tasks; identifies the roles of team members and partners; and discusses potential challenges to successful completion of the project. In all projects that involve students, show how the proposed effort will provide training for these students and in what capacity the students will be involved.

• **Expected results** – State concisely the results to expect the project to achieve. Include a discussion of how the expected results could be applied to eliminate or reduce the identified problem, or to take advantage of the opportunity.

• **Engagement plan** – Describe your target audiences and participant groups; the outreach, communications or education approaches to be used; anticipated outcomes; and estimated costs. Candidate engagement activities may include: use of project results in education or resource management settings; technical training and assistance; development of publications, presentations and other outreach products for public audiences or specific user groups; and involvement in teaching, citizen science and volunteer networks. Ensure outreach costs are included in your budget (in the applicable budget categories). Letters of support may be submitted with the proposal application, especially if cooperative activities are planned.

• **Dissemination of results** – Provide a forecast and tentative timeline for disseminating products or activities. Note anticipated student achievements (degrees earned, job placements, etc.).

• **References**

4. **Budget**

Completed budget worksheet for each year of the project. Budget information submitted in the preliminary proposal will carry over in eSeaGrant and should be updated to reflect final budget costs. Detailed budget instructions are provided in eSeaGrant. All subawards will require full project documentation (narrative and budget) and official approvals from subawardee organizations or institutions.

5. **Budget Justification**

Separate detailed justification for each budget item that must be added to each budget form. Detailed budget justification instructions and an example are provided in eSeaGrant. Subawards require additional scope of work and budget worksheet documents, added as attachments in the subaward budget justification.

6. **Current and Pending Support**

Planned and ongoing research funding for all investigators. Information can be uploaded as a PDF document and appended to the project narrative or entered as individual records on the 'Current and Pending' support page in eSeaGrant. All current and pending support records must provide the investigator name and affiliation, and the following information for each record:

- Support status (current, pending, submission planned in near future)
- Project/proposal title
- Source of support
- Total award amount
- Award period
- Project location
- Person-months committed to project

This information will be used to assess capacity to complete proposed project.

7. **Time Schedule**

Details of project activities and key milestones. A WSG timeline template is available in eSeaGrant.

8. **Support Letters**

Letters from collaborating institutions, contributors of in-kind or matching funds, and organizations that will benefit from project results. Each organization providing third-party cost share contributions in the proposal must provide a letter of commitment, on their letterhead, acknowledging the commitment and dollar amount. All letters should be combined into a single PDF file for upload in eSeaGrant.

9. **NOAA Data Sharing Plan**

A data sharing plan that meets requirements established by the NOAA environmental sharing policy at [www.nosc.noaa.gov/EDMC/PD.DSP.php](http://www.nosc.noaa.gov/EDMC/PD.DSP.php). Additional information on NOAA Data Sharing Plan requirements is provided in eSeaGrant. Projects selected for funding will be required to ensure implementation of their submitted data sharing plan.

10. **National Environmental Policy Act (NEPA) Questionnaire**

   (26 page form) Complete the 'Environmental Compliance Questionnaire for NOAA Federal Financial Assistance Applicants' (OMB Control No. 0648-0538) [http://seagrant.noaa.gov/Portals/0/Documents/funding_fellowship/forms_templates/NEPA/NEPA_questionnaire.pdf](http://seagrant.noaa.gov/Portals/0/Documents/funding_fellowship/forms_templates/NEPA/NEPA_questionnaire.pdf). Instructions are included in the form. Save the filled-out copy of this PDF form, append it to the project narrative and upload into eSeaGrant.
VII

Review Process and Project Selection Criteria

A multi-step process is followed for selecting WSG competitive projects:

1. The call for preliminary proposals is widely distributed across the state and submitted applications are screened to ensure that eligibility criteria are met. WSG convenes a review panel to evaluate preliminary proposals and identify projects for which full proposals should be encouraged. Proposals are evaluated on the basis of project evaluation criteria, without regard to institutional affiliation. Full proposals are encouraged for those projects that rate highly in all evaluation criteria, considering the funding level that is likely to be available while the project is under way.

2. Each submitted and complete full proposal is distributed to external reviewers for written evaluation and comments. At the completion of the review process, PIs are given the opportunity to respond to reviewer comments.

3. WSG convenes a second review panel comprised of experts in the range of disciplines proposed in the submitted full proposals. Panel members are provided with copies of the proposal, all merit reviews and the investigator response to those reviews. The panel discusses each proposal individually and develops recommendations for funding. Summaries of proposals that are recommended for funding are provided to members of the WSG Advisory Committee, who evaluate the project's contribution to the WSG program and make recommendations regarding priorities for funding.

4. WSG applies the five criteria described below in project evaluation. Evaluation criteria are the same for preliminary and full proposals, but there are differences at each stage with respect to relative weighting.

5. WSG reviews all information available and makes final decisions on projects for inclusion in the WSG omnibus grant. Proposals selected for funding may be returned to applicants for revision prior to submission to the National Sea Grant Office.

6. A letter of intent is submitted to the National Sea Grant Office, describing the proposed projects and the rationale for their selection. Once the letter is approved, final proposals are submitted as WSG omnibus grant amendments to the National Sea Grant Office, NOAA, U.S. Department of Commerce. Contingent on the availability of funds and satisfaction of any animal care and human subjects requirements, projects will be funded and implemented on February 1, 2016.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weighting Preliminary Proposal</th>
<th>Weighting Full Proposal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Contribution</td>
<td>40%</td>
<td>25%</td>
<td>Importance, relevance and applicability of proposed project to WSG goals; application to problems or opportunities with societal relevance; and contribution to student and postdoctoral support, workforce development and partnerships at all levels.</td>
</tr>
<tr>
<td>Technical and Scientific Merit</td>
<td>20%</td>
<td>35%</td>
<td>The degree to which the activity advances scientific or educational goals and whether the approach is technically sound and innovative; uses appropriate methods; includes clearly stated measurable objectives and mechanisms to evaluate success; and achieves anticipated results in the time proposed.</td>
</tr>
<tr>
<td>Engagement Plan</td>
<td>15%</td>
<td>15%</td>
<td>Effective plan for ensuring that targeted groups learn about and benefit from project outcomes through outreach, communications and education activities. The degree to which WSG outreach staff and potential users of the results have been and will be included in project planning and implementation.</td>
</tr>
<tr>
<td>Qualification of Applicants</td>
<td>10%</td>
<td>10%</td>
<td>Whether the applicants possess the necessary education, experience, training, facilities and administrative resources to accomplish the project, with consideration to career stage and past performance.</td>
</tr>
<tr>
<td>Project Costs</td>
<td>15%</td>
<td>15%</td>
<td>Budget costs are realistic and commensurate with the project needs and timeframe, reasonable given the availability of program funds, and effectively leverage other resources to achieve project objectives.</td>
</tr>
</tbody>
</table>
VIII CONTACTS AND ADDITIONAL INFORMATION

Investigators are encouraged to contact WSG at 206.616.5718 or wsgres@uw.edu to discuss proposal ideas or ask questions.

Penny Dalton, Director, pdalton@uw.edu
Chelsea Kahn, Research & Information Analyst, wsgres@uw.edu
Marcus Duke, Web Administrator, mduke@uw.edu

WSG OUTREACH WORKSHOP

Wednesday, February 11, 2015
1:00 – 4:00 p.m.
Graham Visitors Center
Washington Park Arboretum
2300 Arboretum Drive E
Seattle, WA 98112

RSVP at https://catalyst.uw.edu/webq/survey/chelkahn/257225

Sea Grant
Washington

Washington Sea Grant
University of Washington
3716 Brooklyn Ave. NE
Seattle, WA 98105-6716

206.543.6600
seagrant@u.washington.edu
www.wsg.washington.edu

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